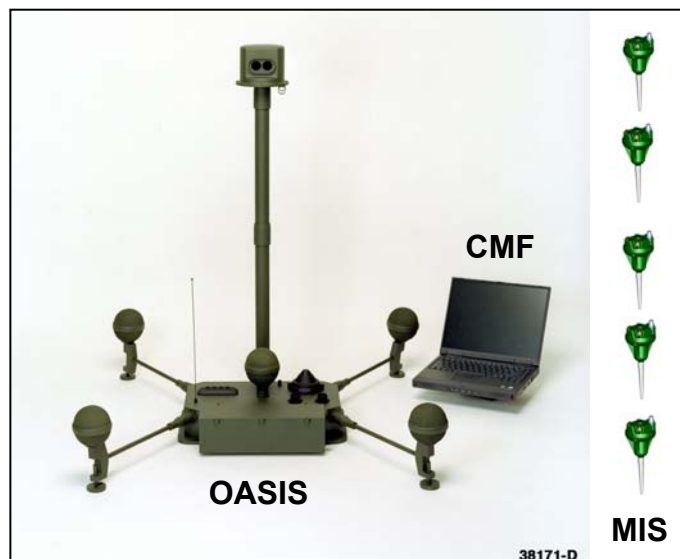


Date Revised: 09 DEC 03

VENDOR DESCRIPTION

Terrain Commander is a multi-spectral Unattended Ground Sensor System. The baseline system consists of up to ten sets of field deployable equipment (FDE), plus a Central Monitoring Facility (CMF). Each FDE contains an OASIS (Optical Acoustic SATCOM Integrated Sensor) and a suite of Miniature Intrusion Sensors (MIS). The OASIS incorporates acoustic and electro-optic (CCD and IR camera) sensors plus a field processing unit (FPU). The MIS are seismic, magnetic, and passive infra-red (PIR) remote ground sensors. Once activated by a sensor detection, the OASIS autonomously sends a target alarm with target image to the CMF via a Satellite Communication (SATCOM) link. Terrain Commander is designed for day/night, all-weather deployments in remote locations.



Product Manager Robotic & Unmanned Sensors

Telephone: (732) 427-5827 / DSN 987

Fax: (732) 427-5072 / DSN 987

e-mail: SFAE-IEWS-NV-RUS@IEWS.monmouth.army.mil



Business Category: Large Business

UGS

Power Source		FDE Environmental	
OASIS	16 COTS D-Cell lithium batteries > 30 days @ 7 activations/day	High Temp	+44°C Low Temp -25°C
CMF Monitor	Various External AC Power Sources (Internal Back-up Battery)	Humidity	100% relative humidity per MIL-STD-810E
CMF SATCOM	Various External AC Power Sources (Internal Back-up Battery)	Immersion	Withstands 30 minutes in 2m water (unpacked)
MIS	One (1) AA lithium battery per MIS	Sand/Dust	Resistant to turbulent dust, concentration 2 kg/m3, category 2 per MIL-STD-810E
		Salt	Resistant per MIL-STD-810E, Method 509.2
		Fungus	Resistant to 1 month growth period
		Shock/Vibe	Random vibration, drop test & loose cargo test/MIL-STD-810E
		EMI/EMC	Complies w/MIL-STD-461A, CE101, CE102, CS114, RE102, RS103

Sensor	Description	Detection Range		Features
Seismic	Employs sophisticated algorithm to classify targets as personnel, wheeled or tracked vehicles	Tracked Vehicle	60m	<ul style="list-style-type: none"> ■ Quiescent until activated by targets ■ Covert operation ■ Passive detection ■ Low false alarm rate ■ Operates on COTS batteries ■ Low power DSP ■ Tamper Detection ■ Probability of Detection >99% ■ Probability of Recognition >95%
Passive Infrared	Detects temperature differential between target and background. Provides left/right direction and target count.	Wheeled Vehicle	60m	
		Personnel	20m	
Magnetic	Detects movement of ferrous metals. Provides target count.	Tracked Vehicle	60-120m max	
		Wheeled Vehicle	60-120m max	
		Personnel	60-90m max	
Acoustic	Employs sophisticated algorithms to detect and classify a variety of targets including wheeled & tracked ground vehicles, fixed and rotary wing aircraft, and watercraft.	Tracked Vehicle	25-50m max	
		Wheeled Vehicle	25-50m max	
		Personnel (w/weapon)	3 m max	
Electro-Optics	Provides day or night target recognition.	Recognition Range		
		Vehicles	500m	
		Personnel	150m	